



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D206-642-341BL
Job Sheet 170523-C



Part No: D206-642-341BL

Job Qty: 1 ea

Part Name: Replacement Skidtube (Fits LH or RH)



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 1/17/18

Job Tracking No:

Due Date: 1/31/18

Created By: Linda Lacelle

Type: SOLD

Description:

Ship Via:

Bill of Materials



S033691



Replacement Skidtube (Fits LH or RH)

Dart Aerospace Ltd.

1270 Aberdeen Street
Hawkesbury, ON K64 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

PART NO: D206-642-341BL

Original Serial #: S033691

Revision:

Operation: Start up Operation 01/19/18

Change No: CHG005

Job No: 170523-C

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		1/25/18	0.00	0.00	Start Up Skidtubes-1		
110	Skidtubes	1 pcs		1/25/18	0.00	1.58	Skidtubes-2		BE, JY
115	QC	1 pcs		1/25/18	0.00	0.00	QC5		PD 13-01-19
116	QC	1 pcs		1/25/18	0.00	0.00	QC9		PD 13-01-19
120	HandFinish	1 pcs		1/25/18	0.00	1.17	HandFinish1		2018/01/22 JSC
125	QC	1 pcs		1/25/18	0.00	0.00	QC7-1		BE
130	Skidtubes	1 pcs		1/25/18	0.00	1.58	Skidtubes-2		JY
140	QC	1 pcs		1/25/18	0.00	0.00	QC5		BE
150	Skidtubes	1 pcs		1/25/18	0.00	1.58	Skidtubes-2		
180	QC	1 pcs		1/25/18	0.00	0.00	QC5		EB
190	HandFinish	1 pcs		1/26/18	0.00	1.17	HandFinish2		2018/01/24 JSC
200	Outsource	1 pcs		1/30/18			ATE003-VC	3	AT 18-01-26
205	QC	1 pcs		1/30/18	0.00	0.00	QC6		PD 18-01-27
210	QC	1 pcs		1/30/18	0.00	0.00	QC14		PD 18-01-27
220	HandFinish	1 pcs		1/31/18	0.00	1.17	HandFinish4		DAS
230	QC	1 pcs		1/31/18	0.00	0.00	QC3		38 DAS
240	QC	1 pcs		1/31/18	0.00	0.00	QC5		9-89 38
245	DC	1 pcs		1/31/18	0.00	0.00	DC		9-89
250	Packaging	1 pcs		1/31/18	0.00	0.00	Packaging3-1		Smis
260	QC21-FG	1 Ea		1/31/18	0.00	0.00	QC21		MCS FEB 01 2016

Part Op 110 - 1-Deburr Fwd edge of tube 2-Scribe "Identify Batch Number" 3-Remove ridge on inside of Fwd edge of tube as per Descriptions: Dwg D2650 4-Weld Fwd Cap as per Dwg D2650. Use aluminum rod. Grind D2647 to fit as required. A/R Aluminum Rod
 5-Grind weld flush to cap on top surface only. 6-Cut aft end to length as per dwg D2650 7-Drill pilot holes using drill Jig DT8168A (A, & B) and DT8025. 8-Drill holes for wearplates using DT 8028-5. Open to Ø 0.297". 9-Open Aft Cap Hole using #6 Drill Bit 10-Open holes for Tow Ring to Ø0.625" as per Dwg D2650, D2650-5 Drilling Detail 11-Remove inner indexing ridge on aft end of skidtube as per Dwg D2650 12- Ream holes to finished size as per Dwg D2650, D2650-5 Drilling Detail (without cutting fluid) 13-Deburr.

130 - 1- Bond D2654-5 web in place as per QSI 015 Ensure holes line up Allow 12 Hrs. cure time before cutting Start Date: Jan 31 Time: 10:18-04-21 Finish Date: Feb 01 Time: 11:38-05-54 A/R Sikaflex-291 M138654 Sikaflex expiry date: 1818-04-21

150 - 1- Insert D4720-1 Spacer. Swage to 0.313" X 0.75" DP per QSI 002. Trim and grind flush per QSI 002

200 - ISSUE PO ***** MASK ALL SADDLE AND GROUND HANDLING ATTACHMENT HOLES AS PER PAR16-484*** Make sure Nut Plate Thread is protected using paint screw, and mask GHW studs. PRIME: Start Time: 11:38-05-55 Finish Time: 18:03 PAINT: DELFLEET BLUE Start Time: 18:03 Finish Time: 18:03 CLEAR DELFLEET B

220 - 1-Install inserts & wearpads as per dwg D2922. Use a drop of Sikaflex inside insert holes before installing wearpad/wearplate. A/R Sikaflex-291 M138555 Sikaflex expiry date: 18/03 2-Install O-Rings D2651-3 on plugs D2651-1 with Petroleum Jelly and install plugs as per Dwg D2650. Clean excess adhesive 3-Install MS27039-4-06 Screw 4-Inspect for foreign object per QSI 024 5-Install D2646 Aft Cap and seal with SikaflexClean excess adhesive A/R Sikaflex-291 M138555 Sikaflex expiry date: 18/03 6- Install D2680-041 Nut Plate as per Dwg D2650 7-Wing Walk as per Dwg D2650-5 and QSI 005 4.4 Batch: M138711

245 - Photocopy bluefile and create labels per PPP D206-642-341 CHG005

250 - Identify and pack for shipping as per PPP D206-642-341 Location: FG083

Job Allocations					
Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	D2620 <i>8163195</i>	1	14	0	0
110-Skidtubes	D2647 <i>8163990</i>	1	5	0	0
130-Skidtubes	D2654-5 <i>5011680</i>	1	13	0	0
150-Skidtubes	D4720-1 <i>50114595</i>	19	515	0	0
220-HandFinish	ALS4-1032-130 <i>5007279</i>	54	9,291	0	0
	CCR264SS3-3 <i>FM137622</i>	2	204	0	0
	CR3212-4-03 <i>FM137886-0</i>	2	216	0	0
	D2646BL <i>5013553</i>	1	10	0	0
	D2651-1BL <i>F164227</i>	14	191	0	0
	<i>1x 5027453</i> D2651-3 <i>F164534x13</i>	14	559	0	0
	D2680-041 <i>5013112</i>	1	55	0	0
	D3537-5 <i>5031839</i>	6	66	0	0
	D3537-3 <i>5013552</i>	1	50	0	0
	D4956-11 <i>5036400</i>	1	2	0	0
	D4956-23 <i>5026889</i>	1	17	0	0
	D4956-35 <i>5015949</i>	1	12	0	0
	MS27039-1-08 <i>FM138209-1</i>	2	523	0	0
	MS27039-4-06 <i>FM137951-1</i>	1	95	0	0
	MS27039C1-08 <i>5013448</i>	54	190	0	0
	NAS1149C0332R <i>5027570</i>	54	3,963	0	0
	NAS1149D0332J <i>5020606</i>	2	446	0	0
	NAS1149D0463J <i>FM137988</i>	1	5,256	0	0
Part Specifications					
Specifications could not be found.					

Plex 1/17/18 7:55 AM dart.lacelle.linda

000250

QTY -1	QTY -3	QTY -5	QTY -7	PART NUMBER	DESCRIPTION
X				D2650-1	SKIDTUBE ASSEMBLY
	X			D2650-3	SKIDTUBE ASSEMBLY
		X		D2650-5	SKIDTUBE ASSEMBLY
			X	D2650-7	SKIDTUBE ASSEMBLY
1	1	1	1	D2600-1-160	EXTRUSION
1				D2654-1	WEB
	1			D2654-3	WEB
		1		D2654-5	WEB
			1	D2654-7	WEB
1	1	1	1	D2646	AFT CAP
1	1	1	1	D2647	CAP
17	18	19	23	D2649	CROSS BOLT SPACER
16	18	14	22	D2651-1	PLUG
16	18	14	22	D2651-3	O-RING
1	1	1	1	D2680-041	NUT PLATE
2	2			D3286-1	DOUBLER
2	2			D3286-3	STUD
42	44	54	60	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, ALS7-1032-130)
2	2	2	2	AN960JD10L	WASHER
2	2	2	2	CCR264SS3-3	RIVET
2	2	2	2	CR3212-4-03	RIVET
2	2	2	2	MS27039-1-08	SCREW
1	1	1	1	MS27039-4-06	SCREW
1	1	1	1	AN960JD416	WASHER
52	52			CR3212-4-04	RIVET

F

F

NOTES:

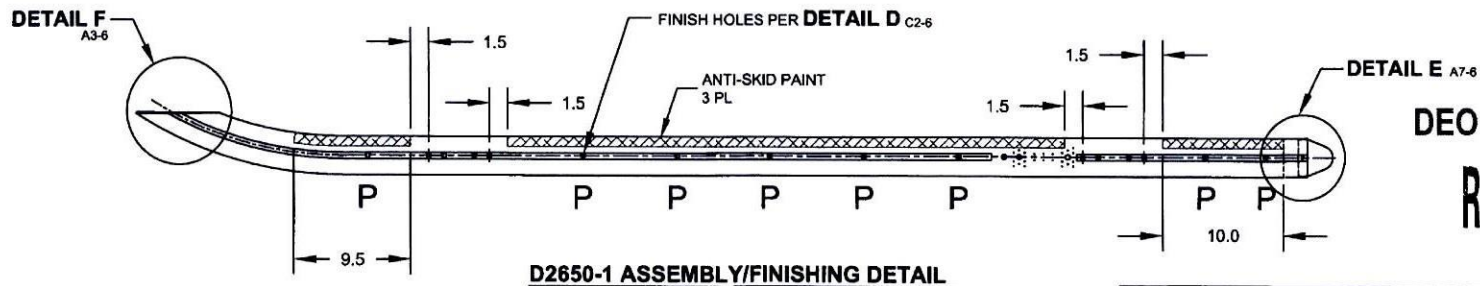
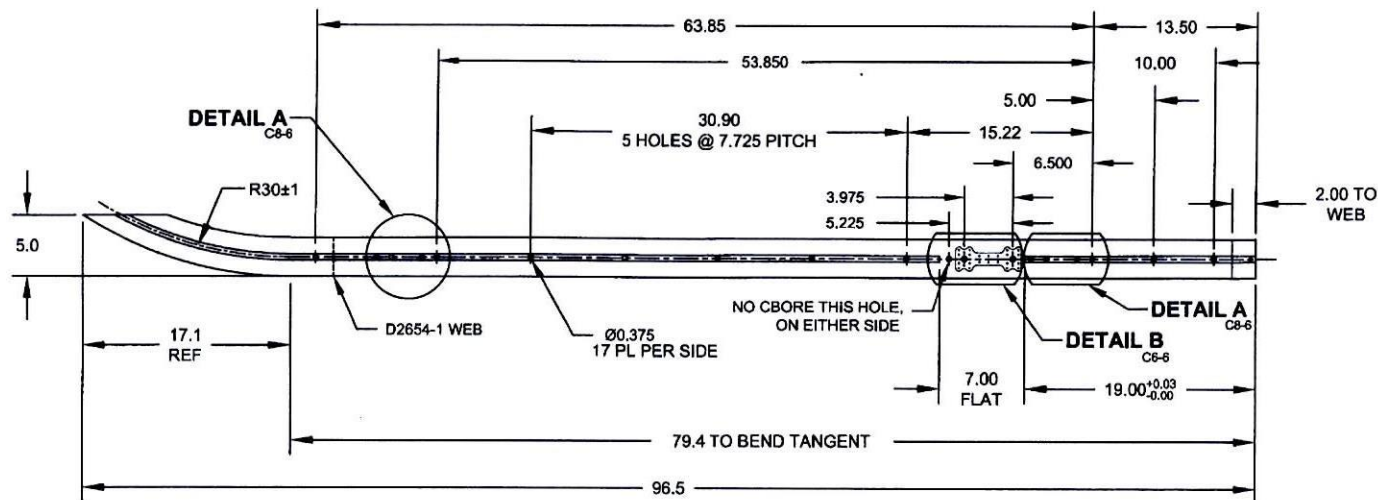
- 1) MATERIAL: N/A
- 2) FINISH: -CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
-POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
-BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A
- 8) WELD PER DART QSI 004
- 9) DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 5 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- 10) BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241/291 ADHESIVE PER DART QSI 015
- 11) INSERT D2651-1 PLUG C/W D2651-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE)
- 12) DRILL Ø0.297 FOR ALS7-1032-130 INSERTS USING TEMPLATE DT8056-1 ON -1 TUBE, DT8056-3 ON -3 TUBE, DT8056-5 ON -5 TUBE, AND DT8056-7 ON -7 TUBE. INSTALL INSERTS AFTER FINISH.
- 13) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

170523-C

DEO ATTACHED

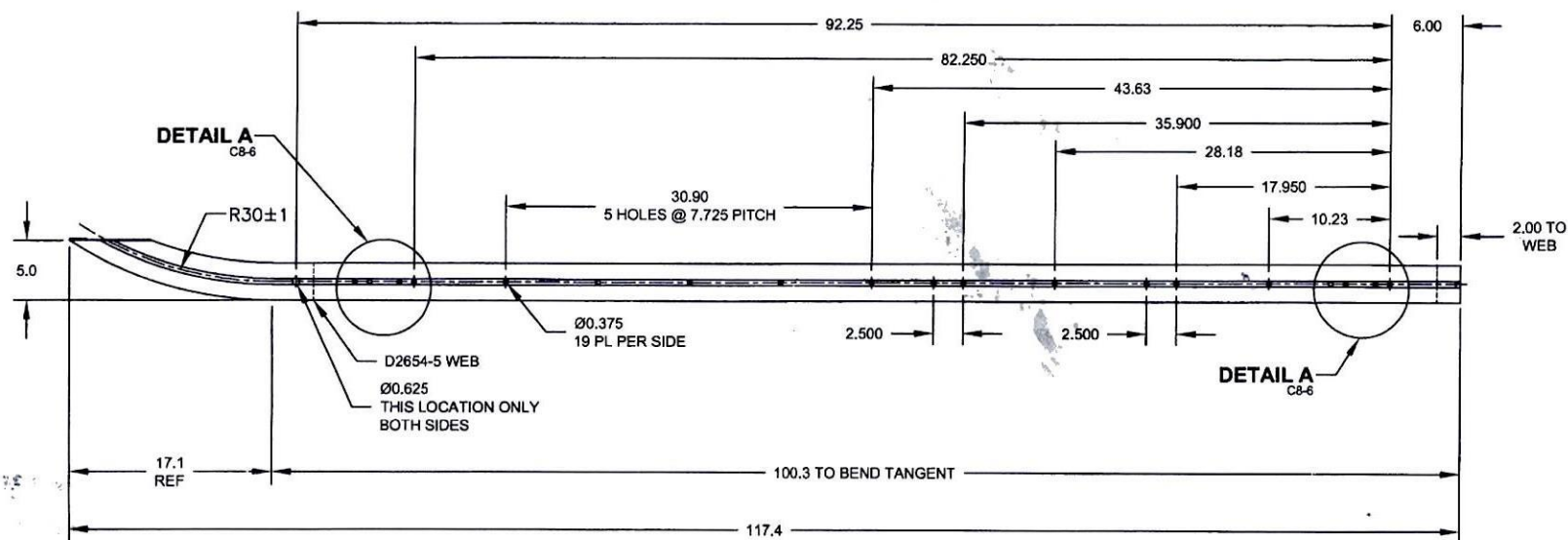
RELEASED
08-27-23

F	DRAWING UPDATED TO CURRENT STANDARDS. SHT 6 ADDED. ALL SECTION AND DETAIL VIEWS TRANSFERRED TO SHT 6. SHT 1 IN PL PART D2649 QTY UPDATED. SHT 6 SECT C-C GRIND INSTRUCTIONS DELETED FROM NOTE 7 (SEE NCR 239).	AJS	08.08.08
E	REMOVE CBORE, CHG DRILL, ADD CHAMFER	CP	06.03.30
D	REDRAW; INCCRP, DE09136/9153/9163 MOD GROUND HANDLING ON D2650-1/-3	CP	04.05.17
C	CHANGE HOLE PATTERN AND FRONT END	DS	97.10.29
B	AS MANUFACTURED CHANGES	DS	97.06.26
A	NEW ISSUE	DS	97.03.25
REV.	DESCRIPTION	BY	DATE
DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 1 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

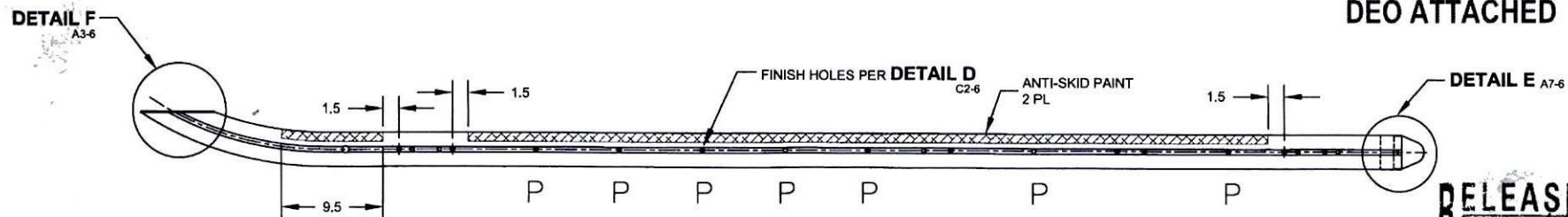


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680922/114

DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 2 OF 6
APPROVED		TITLE	SCALE
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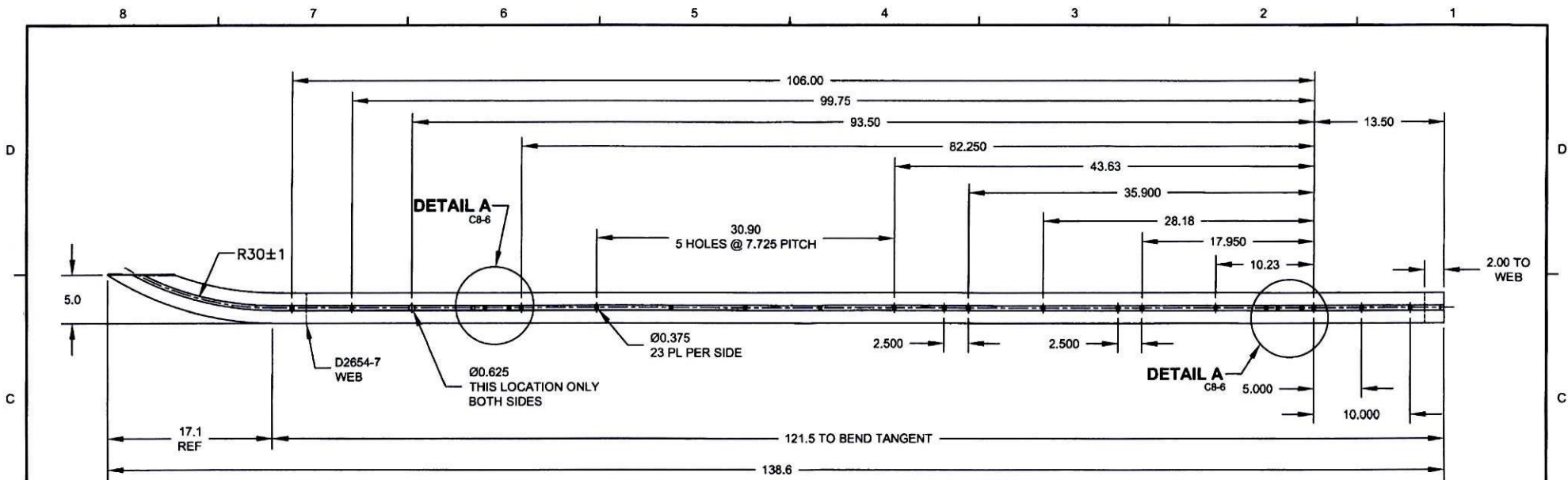


D2650-5 BENDING/DRILLING DETAIL



D2650-5 ASSEMBLY/FINISHING DETAIL

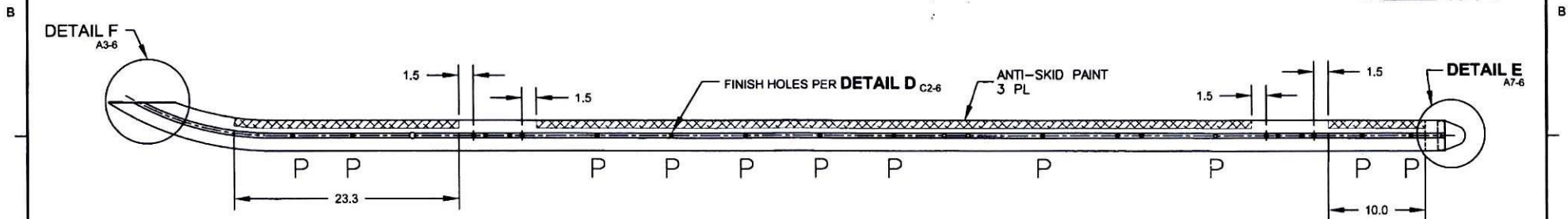
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DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 4 OF 6
APPROVED		TITLE	SCALE
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D2650-7 BENDING/DRILL DETAIL

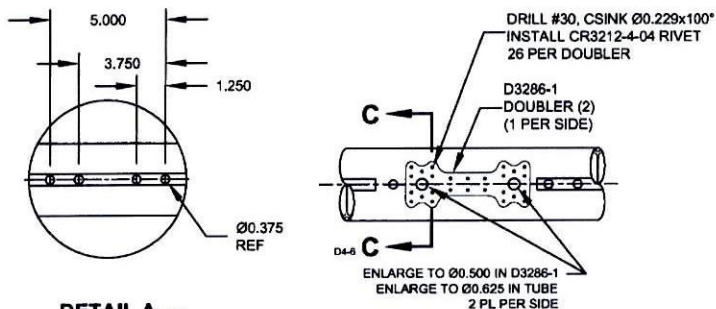
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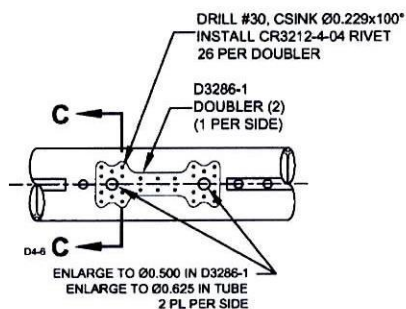
D2650-7 ASSEMBLY/FINISHING DETAIL

DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 5 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
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DETAIL A
SCALE 2X

C2-2
D7-2
C2-3
D7-3
C2-4
D7-4
C2-5
D6-5



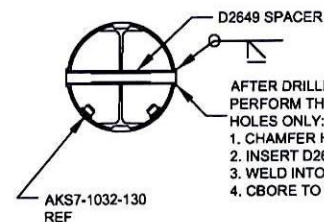
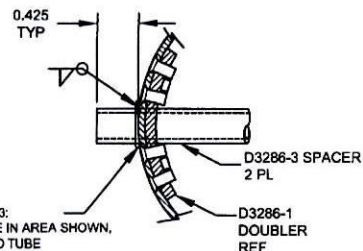
DETAIL B
SCALE 2X

C3-2
C3-3



- TO INSTALL D3286-1/3:
1. GRIND OFF FLANGE IN AREA SHOWN, FLUSH WITH ROUND TUBE
 2. LOCATE & DRILL D3286-1 DOUBLER USING DT3286-1T1
 3. ENLARGE HOLES IN D3286-1 TO Ø0.500
 4. ENLARGE HOLES IN TUBE TO Ø0.625 AND CHAMFER HOLE 0.030x45°
 5. RIVET D3286-1 TO TUBE
 6. INSERT D3286-3 SPACER
 7. WELD IN PLACE.

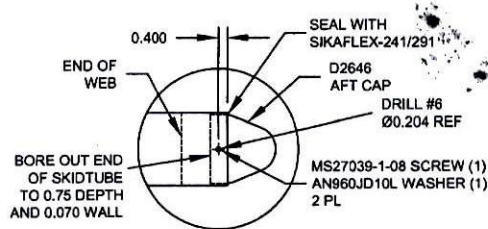
SECTION C-C C7-6
SCALE NONE



DETAIL D
FOR Ø0.375 HOLES ONLY
SCALE 3X

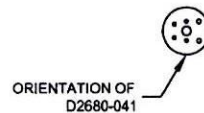
B4-2
B4-3
B4-4
B4-5

- AFTER DRILLING AND BENDING ASSEMBLY PERFORM THE FOLLOWING FOR Ø0.375 HOLES ONLY:
1. CHAMFER HOLE 0.030 X 45°
 2. INSERT D2649 SPACER
 3. WELD INTO PLACE AND GRIND FLUSH
 4. CBORE TO Ø0.313 X 0.75 DP



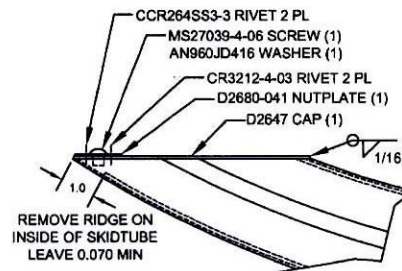
DETAIL E
SCALE 2X

B2-2
B2-3
B1-4
B1-5



DETAIL F
SCALE NONE

B6-2
B6-3
B6-4
B6-5



DETAIL F NOTES:

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D2647 (TRIM AS NECESSARY)
4. WELD D2647 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D2680-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D2680-041 PRIOR TO FINISH

RELEASED

DEO ATTACHED

DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 6 OF 6
APPROVED		TITLE	SCALE
DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
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DRAWING NO. D2650	TITLE 206/407 SKIDTUBE ASSEMBLIES	REV. F	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D2650-F-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>[Signature]</i>	CHECKED A.P.	MFG. APPR. <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DE APPR. <i>[Signature]</i>			
DATE 12.10.12	DATE 12.10.22	DATE 12.10.22	DATE 12.10.22	DATE 12.10.22			

PURPOSE:

CHANGE C'BORED WELDED CROSSBOLT SPACERS TO SWAGED SPACERS

CHANGE:

PARTS LIST IS AMENDED AS FOLLOWS:

IS:

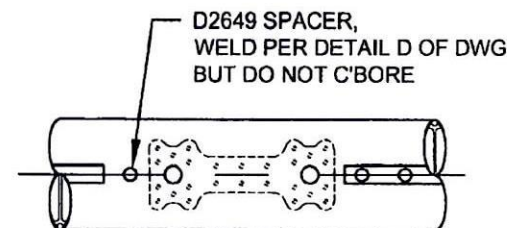
QTY	QTY	QTY	QTY	PART NUMBER	DESCRIPTION
-1	-3	-5	-7		
1	1	0	0	D2649	CROSS BOLT SPACER
16	17	19	23	D4720-1	SPACER

WAS:

17	18	19	23	D2649	CROSS BOLT SPACER
----	----	----	----	-------	-------------------

ADD DETAIL G BELOW, WHICH IS THE SAME SECTION VIEW AS DETAIL D OF DWG.

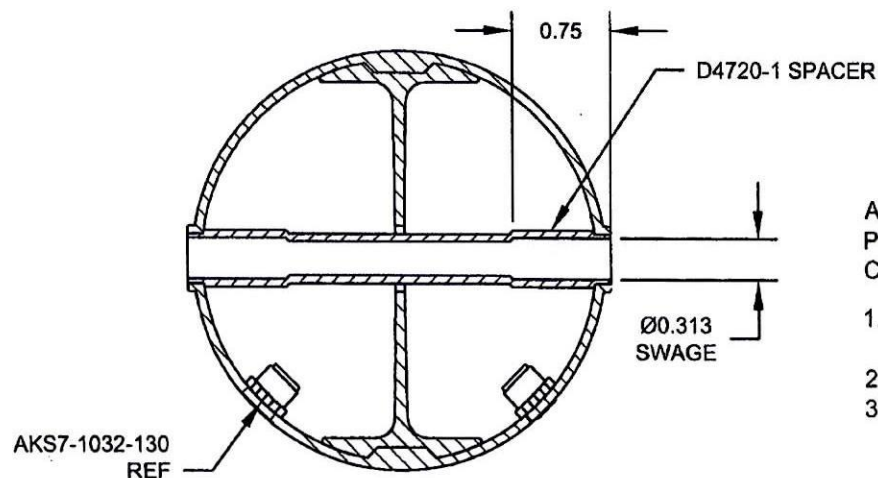
C'BORED HOLES ARE **NOW SWAGED** PER DETAIL G BELOW. FOR THE Ø0.375 HOLE THAT IS NOT C'BORED, WELD PER DETAIL D OF DWG (SEE AMENDED DETAIL B FOR REFERENCE).



DETAIL B

AMENDMENT TO DETAIL B
NOT TO SCALE

RELEASED
2012-11-16
[Signature]



DETAIL G

FOR Ø0.375 HOLES ONLY
FOR HOLES THAT ARE CURRENTLY C'BORED ONLY
NOT TO SCALE

AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.375 HOLES THAT ARE
CURRENTLY C'BORED:

1. INSERT D4720-1 SPACER, 16 PL (-1) OR 17 PL (-3)
OR 19 PL (-5) OR 23 PL (-7)
2. SWAGE TO Ø0.313 X 0.75 DP PER QSI 002
3. TRIM / GRIND FLUSH PER QSI 002